

**REMARKS**

This Amendment is in response to an Office Action faxed on August 8, 2003. In that Office Action, the Examiner objected to claims 1, 24 and 25, rejected claims 1-7, 9-12, 14, 17, 19-21 and 26 under 35 U.S.C. §102(b), and rejected claims 8, 13, 15, 16, 18, 19, 22-24, and 27-29 under 35 U.S.C. §103(a). Claim 25 was indicated to be allowable. With this Amendment, claims 1, 24 and 25 are amended to overcome the objections. Claims 14 and 29 are amended for clarification purposes. Below are the responses to the rejections.

**Rejections under 35 U.S.C. §102****U.S. Patent No. 3,677,345 issued to Sizer**

In the Office Action, the Examiner rejected claims 1-7, 17, 19-21 and 26 as being anticipated by U.S. Patent No. 3,677,345 issued to Sizer (hereinafter the "'345 patent"). With respect to claim 1, Applicant fails to understand how the '345 patent teaches or suggests connecting of successive tube parts end-to-end into the tube being completed before the tube is brought in communication with the borehole. The Office Action only refers to Figure 1, with reference to tube T, successive tube parts 15, connecting area 20 and an at least partially curved path 18. No reference to the '345 patent including the "...connection of successive parts end-to-end into said tube is completed *before* said tube is brought in communication with said borehole..." is made. In the '345 patent, it appears that the entire disclosure is directed to tube parts being connected to the end of the tube while it is projecting into the borehole (*See e.g.*, Col. 2, line 55 to Col. 3, line 18). The present application, however, includes significant disclosure of connecting tube part before the tube is in communication with the bore hole. (*See e.g.*, page 12, line 26 to page 15, line 7). Completing assembly of the tube out of the tube parts before the tube is brought in communication with the borehole provides the advantage that it is not necessary to work on a tube which communicates with a borehole, so that the associated dangers of blow outs and explosions are avoided. Also, the introduction of the tube on the rig is not slowed down by the need of connecting tube parts into the tube. Nevertheless, the assembly of the tube from tube parts allows easy transportation of the tube without having to coil the tube to a smaller diameter as is necessary when continuous tube is used

which has to be transported over for instance public roads in a coiled condition. For these reasons, Applicant believes that claim 1 is allowable. Because claims 2-7 depend from claim 1, claims 2-7 are also believed to be allowable.

Moreover, for the sake of completeness, Applicant points out that in reference to claim 2, the '345 patent neither teaches nor suggests that the path along which the tube is displaced **from the connecting area to the borehole** includes at least one complete winding. Instead, the '345 patent suggests a first bend 17 no greater than 90° and a second bend 18 no greater than 180°. Neither of these is a complete winding, with the 90° bend constituting at most a quarter winding and the 180° bend constituting at most a half winding. The rotatable basket or receptacle 100 of the '345 patent is not positioned between the connecting area and the borehole.

The '345 patent also neither teaches nor suggests a spiral or helical portion of the path **from the connecting area to the borehole** in accordance with claim 3 of the present application. In fact, in addition to the lack of such teaching or suggestion, there is no incentive to provide for a spiral or helical portion because with a half winding there is no need for escaping from a single plane. For the foregoing reasons, it is believed that claims 1-7 are in allowable form. Reconsideration and allowance of claims 1-7 is respectfully requested.

With regard to claim 17, Applicant respectfully brings to the Examiner's attention that the '345 patent suggests the tube being bent in two directions, namely the first bend 17 which is in a first direction followed by the second bend 18 which is in a second opposite direction. Claim 17 requires "...each portion of said tube..." being "...bent to a curved shape in **exclusively one direction**." This is neither suggested nor taught by the '345 patent. Applicant therefore believes that claim 17 is not anticipated by the '345 patent, and thus is in allowable form. Reconsideration and allowance of claim 17 is respectfully requested.

Claim 19 includes a similar feature, namely that the "...transport structure is arranged for bending each portion of said tube... to a curved shape in **exclusively one direction** relative to the portion of said tube." As in the previous paragraph, this aspect is neither taught nor suggested by the '345 patent. Applicant therefore believes that claim 19 is not anticipated by the '345 patent.

Also, because claims 20, 21 and 26 depend in some fashion from claim 19, claims 20, 21 and 26 are also believed to be in allowable form. Reconsideration and allowance of claims 19-21 and 26 is respectfully requested.

**U.S. Patent No. 2,548,616 issued to Priestman et al.**

In the Office Action, the Examiner rejected claims 9-12 and 14 as being anticipated by U.S. Patent No. 2,548,616 issued to Priestman et al. (hereinafter "the '616 patent"). In rejecting claim 9, the Examiner referred to Figure 2 of the '616 patent as disclosing a method for introducing a tube into a borehole in the ground. Referring to Column 4, lines 20-24, the Examiner further stated that the '616 patent also disclosed connecting successive tube parts end-to-end in a connecting area. Applicant respectfully observes, however, that the tube of Figure 2 of the '616 patent is bent in two distinct curves: upwards from the coupling point at 40 to the elevated pipe benders at 29, where it then bends downward again. Hence, Figure 2 of the '616 patent does not disclose portions of the tube or composed section thereof "...proceeding along said curved path... bent into at most **one single curve**".

Furthermore, Figure 1 of the '616 patent neither teaches nor suggests "...composing said tube by connecting successive tube parts..." which is another feature of claim 9, because the section of Column 4, lines 20-24 only relates to the embodiment of Figure 2. The embodiment of Figure 1 relates to a prefabricated tube. Applicant has never disputed that prefabricated tube on a small-diameter coil is known (see page 2, lines 5-24 of the patent application). This view is also confirmed in Column 1, lines 17-21 of the '616 patent, where it is stated that in its broadest concept, long lengths of metal pipe are brought up to the well **either** in a coil, **or** in separate lengths which may be welded together in a continuous string while lying flat on the ground in the neighborhood of the well bore. The '616 patent neither discloses nor suggests welding separate tube lengths together, followed by bending in one single curve. Applicant therefore believes that claim 9 is not anticipated by the '616 patent, and thus in allowable form. Because claims 10 and 11 depend from

claim 9, and because it is believed that claim 9 is in allowable form, claims 10 and 11 are also in allowable form. Reconsideration and allowance of claims 9-11 is respectfully requested.

In the Office Action, claim 12 was also rejected as being anticipated by the '616 patent. Claim 12 also recites that the tube "...is bent to a curved shape in exclusively one direction...." Because, as Applicant has described in the preceding paragraphs, the '616 patent discloses at least two directions of bending for any pipe welded together, it is believed that claim 12 is not anticipated by the '616 patent, and thus in allowable form. Because claim 14 depends from claim 12, and because it is believed that claim 12 is in allowable form, then claim 14 is also in allowable form. Reconsideration and allowance of claims 12 and 14 is respectfully requested.

### **Rejections under 35 U.S.C. §103**

#### **The '345 Patent**

In the Office Action, the Examiner rejected claim 8 as being obvious in view of the '345 patent. Claim 8 depends in some fashion from claim 1. Because claim 1 is not obvious, claim 8 is also non-obvious. Reconsideration and allowance of claim 8 is respectfully requested.

#### **The '616 Patent**

In the Office Action, the Examiner rejected claim 15 as obvious over the '616 patent. Although welding may be known to occur in a screened space on occasions, it is respectfully traversed that welding normally occurs in a screened space, as alleged in the Office Action. Applicant respectfully requests to see the evidence of the allegation of obviousness and have an opportunity to comment thereon. Furthermore, because claim 15 depends in some fashion from claim 12, and claim 12 is not obvious, claim 15 is also non-obvious. Reconsideration and allowance of claim 15 is respectfully requested.

#### **The '616 Patent in view of the '345 patent**

In the Office Action, the Examiner rejected claim 16 as being obvious over the '616 patent in view of the '345 patent. As explained in the preceding paragraphs, neither the '345 patent

nor the '616 patent teach or suggest disconnecting the tube parts from the tube in the connecting area **with the tube proceeding along a curved path being bent into at most one single curve.** With respect to Figure 1 of the '616 patent, it is stated in Column 4, lines 11-15, that the tube is coiled but tube parts are not disconnected. The only suggestion of disconnecting tube parts in the '616 patent occurs in reference to Figure 2, which figure includes at least two bends in the tube. It should be noted that bending the tube into at most one single curve provides the advantage that the deformation of the tube and its tube sections in the process is reduced. This advantage is not achieved in the '345 patent, nor in the '616 patent, nor in the combination of either two. Even in the '616 patent, the embodiment illustrated in Figure 1 lacks this advantage, because in order to bring the tube up to the well in a coil (*See* Column 1, lines 17-21) the reel has a diameter small enough to be handled and transported. Thus, when feeding the tube back to the reel, it needs to be deformed to a large extent.

There is no teaching nor suggestion in the combination of the '345 patent and the '616 patent of a method which includes having separate tube sections wherein those connected tube sections are proceeded along a curved path being bent in at most one single curve. Thus, neither the '345 patent, the '616 patent, or their combination teach or suggest the present invention as defined by claim 16. Claim 16 is therefore believed to be in allowable form, and reconsideration and allowance of claim 16 is respectfully requested.

**The '616 Patent in view of U.S. Patent No. 5,394,951 issued to Pringle et al.**

In the Office Action, the Examiner rejected claims 13, 18, 19, 22-24, and 27-29 as being obvious over the '616 patent in view of U.S. Patent No. 5,394,951 issued to Pringle et al. (hereinafter "the '951 patent"). Applicant respectfully disagrees. Claim 13 depends from claim 12. Because claim 12 is not obvious, then claim 13 is also non-obvious. Reconsideration and allowance of claim 13 is respectfully requested.

With respect to claims 18 and 19, neither the '616 patent nor the '951 patent teach or suggest connecting successive tube parts end-to-end wherein the connected tube parts proceed along a curved path being bent into at most one single curve before introduction into the well head.

The '951 suggests a drilling assembly including **coiled tubing** for drilling a curved bore hole. Above and beyond the fact that the tubing is coiled, the entire gist of the '951 patent is what happens **after** it has been introduced into the well head, which has nothing to do with introduction of the coil into the well head. Hence, neither the '616 patent nor the '951 teach or suggest a transport structure that is arranged for bending portions of the tube proceeding along a curved path into at most one single curve (claim 18), nor a transport structure arranged for bending the tube to a curved shape in exclusively one direction (claim 19). It should be noted that bending the tube into at most one single curve provides the advantage that the deformation of the tube and its tube sections in the process is reduced. Since this advantage is not apparent from either the '616 patent, the '951 patent or a combination of the two, the invention as claimed in claims 18 and 19 is not obvious. With respect to claim 29, similar to claim 15, although welding may be known to occur in a screened space on occasions, it is respectfully traversed that welding normally occurs in a screened space, as alleged in the Office Action. Applicant respectfully requests to see the evidence of the obviousness allegation and have an opportunity to comment thereon. Also, because claims 22-24 and 27-29 depend in some fashion from claim 19, and because claim 19 is believed to be in allowable form, then claims 22-24 and 27-29 are also in allowable form. Reconsideration of claims 18, 19, 22-24 and 27-29 is respectfully requested.

First Named Inventor: Thomas W. Bakker et al.  
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Application No.: 09/889,726

**DRAWING OBJECTION**

In the Office Action, the Examiner objected to Figure 1 because the lead line for element 8 next to element 5 did not point to the tube as described in the Specification. A new Figure 1 is submitted herewith with the lead line for element 8 pointing to the tube as described in the Specification. Consideration of Figure 1 is respectfully requested.

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Application No.: 09/889,726

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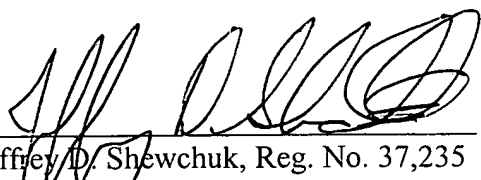
For the foregoing reasons, it is believed that all the presented claims are in allowable form, and that the application is ready for allowance. Applicant therefore respectfully requests consideration of new Figure 1 along with reconsideration and allowance of claims 1-29. If there are any questions or issues that can be cleared by a teleconference, please feel free to contact the undersigned attorney.

Respectfully submitted,

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